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IN THE UNITED STATES DISTRICT COURT
FOR THE NORTHERN DISTRICT OF CALIFORNIA
OAKLAND DIVISION

Cameron et al. v. Apple Inc.

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Case No. 4:19-cv-03074-YGR

Declaration of
Professor Nicholas Economides

I. INTRODUCTION

1. I am Nicholas Economides. I am Professor of Economics at the Stern School of Business of New York University, located at 44 West 4th Street, New York, NY 10012.¹

2. On June 1, 2021, I filed an expert report regarding class certification in this matter.² After the filing of that report, Apple produced additional transaction data relevant to the damages totals in that report.³ I also understand from counsel that a class has been defined (hereinafter the “Settlement Class”) as follows:

“Settlement Class” means all former or current U.S. Developers of any Apple iOS application or in-app product (including subscriptions) sold for a non-zero price via Apple’s iOS App Store that earned, through all Associated Developer Accounts, Proceeds equal to or less than \$1,000,000.00 through the App Store U.S. storefront in every calendar year in which the U.S. Developer had a Developer Account between June 4, 2015 to the date of this Agreement. For class definition purposes, the 2015 calendar year shall consist of June 4, 2015 through December 31, 2015. The 2021 calendar year shall consist of January 1, 2021 through April 26, 2021, the last date in 2021 for which there are available developer transactional data as produced in this Action. Additionally, excluded from the Settlement Class are (a) directors, officers, and employees of Apple or its subsidiaries and affiliated companies, as well as Apple’s legal representatives, heirs, successors, or assigns, (b) the Court, the Court staff, as well as any appellate court to which this matter is ever assigned and its staff, (c) Defense Counsel, as well as their immediate family members, legal representatives, heirs, successors, or assigns, (d) any Developers who validly request exclusion (“opt out”) from the Settlement Class, and (e) any other individuals whose claims already have been adjudicated to a final judgment.

¹ My CV and list of prior testimony were provided as attachments to my June 1, 2021 expert report on class certification and are unchanged from that time (other than my participation in this matter). See Attachments A and B to “Expert Class Certification Report of Professor Nicholas Economides,” June 1, 2021 (hereinafter “Economides Class Report”).

² See Economides Class Report.

³ See Apple’s June 2021 Supplemental Transaction Data Production.

3. Plaintiffs' Counsel has asked me to supplement my previous work to update my damages estimates, taking into account the new transaction data and considering only the Settlement Class. Counsel has also asked me to estimate the value of the Small Business Program to the members of this Settlement Class, from its inception to a time 3 years in the future from the settlement date (defined as August 26, 2024). Finally, Counsel has asked me to discuss the value to the members of the Settlement Class of a provision in the Settlement Agreement authorizing certain out-of-app communications.

4. My findings are summarized as follows:

- The Settlement Class includes 67,335 developers, which constitutes over 99% of all developers encompassed by the class definition set forth in Plaintiffs' June 1, 2021 Motion for Class Certification.
- Based on the analysis I presented in my previous expert report, and updating the analysis with Apple's subsequently produced transaction data, I estimate damages to the Settlement Class to be between \$289 million and \$329 million.
- I estimate the savings to developers resulting from the Small Business Program (for sales through the U.S. storefront) from its inception through a date three years after the settlement date to be \$177.2 million for the Settlement Class, and \$190.2 million for all U.S. developers (including the Settlement Class).
- Allowing developers greater freedom to communicate with customers about purchasing methods other than in-app purchase ("IAP") is a substantive change from Apple's current policy and gives developers an opportunity to change consumer behavior and build direct consumer relationships. Once established, this might be a source of substantial savings to developers and tangible competitive pressure on Apple.

II. NUMBER OF CLASS MEMBERS

5. I identify a developer as a member of the Settlement Class if the developer meets all of the following criteria:

- a. The developer is domestic.⁴
- b. The developer sold an iOS app or in-app product via Apple's iOS App Store for a non-zero price at least once during the class period.
- c. The developer never earned more than \$1 million in total proceeds⁵ on the App Store's U.S. storefront in any calendar year from 2015 to 2021.⁶

6. This methodology indicates that there are 67,335 members of the redefined class.⁷ There are 586 domestic developers who sold an iOS app or IAP through via the App Store during the class period, but are not part of the redefined class because they received more than \$1 million in proceeds through the App Store's U.S. storefront in at least one year from 2015 to 2021.⁸ Thus, over 99% of domestic developers who ever sold an iOS App or IAP for a nonzero price during the class period are in the redefined class.

7. The Settlement Class also includes the named plaintiffs Pure Sweat Basketball, Inc. ("PSB") and Donald R. Cameron ("Cameron"), per the criteria above. Both PSB and Cameron are domestic and have sold at least one app or in-app product while earning less than \$1 million in total proceeds in every calendar year.⁹ In particular, Cameron's total proceeds in the U.S. storefront from the start of the class period to the end of Apple's transaction data (April 26, 2021) were \$101, while PSB's total proceeds over the same period were \$148,950.¹⁰

⁴ I identify a developer as domestic, that is, residing in the United States, if its country code equals "USA" or "PRI" (Puerto Rico) in Apple's "content-provider" lookup table.

⁵ "Proceeds" refers to a developer's net revenues, after subtracting out any commission paid to Apple.

⁶ For these purposes, the calendar year 2015 is defined to consist of June 4, 2015 through December 31, 2015, and the calendar year 2021 is defined to consist of January 1, 2021 through April 26, 2021, the last date in 2021 for which there are available developer transactional data as produced in this Action.

⁷ See "ELSC704every n classmembers limited to always under 1M.txt".

⁸ The file "ELSC704every domestic developers excluded from class by every under 1M req.csv" provides a list of these developers excluded from the redefined class.

⁹ See "ELSC801a class rep damages input (up to Apr 2021).csv".

¹⁰ See *Id.*

III. DAMAGES FOR SETTLEMENT CLASS FROM START OF CLASS PERIOD TO PRESENT

8. I now present the damages calculation for the Settlement Class. Counsel has requested that I recalculate estimated damages for this new class definition from the beginning of the class period (June 4, 2015) to the last date for which Apple has produced transaction data (April 26, 2021). For this calculation, I use the exact same damages methodology as in my opening class report, but apply it to the new class definition.

9. I present these figures in the form I used for my original report. The first updated table is Table 8 in my original class report, summarizing the total billings (paid by consumers) and commissions paid by the class members. [REDACTED]

Table 8 (Supplemental): Settlement Class Member Billings, Commissions, and Average Rates by Year (in Millions of \$)¹¹

Year	Total Billings at 30%	Total Billings at 15%	Total Commissions Paid	Average Commission Rate
2015	\$170	\$-	\$51	29.8%
2016	\$278	\$12	\$85	29.2%
2017	\$272	\$27	\$85	28.5%
2018	\$301	\$40	\$96	28.1%

¹¹ See calculations in "Economides Supplemental Damages Calculations.xlsx". Sources: "ELSC704every damages output for redefined class.csv" and "ELSC800 comm, rev by comm_tier class status year, from start of class to Apr 26, 2021.csv". For the original table, see Economides Class Report at p.38.

10. The second updated table is Table 9, summarizing total damages. My estimate of overall total damages for the Settlement Class is \$289 million - \$329 million.

Table 9 (Supplemental): Total Damages for Settlement Class by Actual-World Commission Rate (in Millions of \$), Under Different Estimates of But-for Commission Rates¹²

But-For Commission Rate	But-for Rate Type	Tier 1 (30% in Actual World)				Tier 2 (15% in Actual World)				Overall Total Damages
		But-for Rate	Over-charge	Total Billings	Total Damages	But-for Rate	Over-charge	Total Billings	Total Damages	
14.8%	2:1 Ratio	15.8%	14.2%	\$1,861	\$264	7.9%	7.1%	\$363	\$26	\$290
14.8%	Cost-Based	15.6%	14.4%	\$1,861	\$268	9.1%	5.9%	\$363	\$21	\$289
14.5%	2:1 Ratio	15.5%	14.5%	\$1,861	\$270	7.7%	7.3%	\$363	\$26	\$297
14.5%	Cost-Based	15.3%	14.7%	\$1,861	\$274	8.9%	6.1%	\$363	\$22	\$296
13.0%	2:1 Ratio	13.9%	16.1%	\$1,861	\$300	6.9%	8.1%	\$363	\$29	\$329
13.0%	Cost-Based	13.7%	16.3%	\$1,861	\$304	8.3%	6.7%	\$363	\$24	\$328

¹² See calculations in “Economides Supplemental Damages Calculations.xlsx”. For the original table, see Economides Class Report at p.39.

IV. COMMISSIONS SAVED DUE TO SMALL BUSINESS PROGRAM

11. Counsel has asked that I estimate how much Apple’s SBP has reduced Settlement Class members’ commissions on transactions through the U.S. storefront, from its inception to three years after the settlement date (defined as August 26, 2024). Counsel has also asked that I estimate a similar figure for all U.S. developers.

12. Apple’s Small Business Program (“SBP”) went into effect on January 1, 2021.¹³ Upon application to the program, the SBP lowers a developer’s commission rate for app sales and in-app purchases to 15%, under the following conditions (as stated on Apple’s website):

- “Existing developers who made up to 1 million USD in proceeds for all their apps, as well as developers new to the App Store, can qualify for the program and the reduced commission.
- If a participating developer surpasses the 1 million USD threshold, the standard commission rate will apply to future sales.
- If a developer’s proceeds fall below the 1 million USD threshold in a future calendar year, they can re-qualify for the 15% commission the year after.”¹⁴

13. Section A below calculates the total commissions saved by Settlement Class members on their sales through the U.S. storefront as a result of the SBP, from its inception to the end of Apple’s currently produced transaction data (April 26, 2021). Section A also calculates this amount for U.S. developers as a whole through the U.S. storefront.¹⁵ Section B estimates the additional commissions saved as a result of the SBP after the end of Apple’s current transaction data. Section C summarizes these calculations, finding overall savings of \$177.2 million for the Settlement Class and \$190.2 million for U.S. developers overall.

¹³ Apple Newsroom, Apple announces App Store Small Business Program (published November 18, 2020, available at www.apple.com/newsroom/2020/11/apple-announces-app-store-small-business-program/) (“New program reduces App Store commission to 15 percent for small businesses earning up to \$1 million per year... . The App Store Small Business Program . . . will launch on January 1, 2021 . . . The App Store’s standard commission rate of 30 percent remains in place for apps selling digital goods and services and making more than \$1 million in proceeds, defined as a developer’s post-commission earnings.”)

¹⁴ Apple, “App Store Small Business Program: Basics” (<https://developer.apple.com/app-store/small-business-program/>).

¹⁵ These calculations are limited to the U.S. storefront because Apple has not yet produced transaction data for sales through other storefronts.

A. From Inception of SBP to End of Apple Transaction Data

14. Apple's SBP reduced a developer's commission (relative to the SBP not existing) if the developer received a 15% commission pursuant to the SBP, but would not have otherwise qualified for the 15% commission tier but for the SBP. This means the SBP reduced the developer's commissions for transactions that meet all of the following criteria:

- a. A 15% commission was charged;
- b. The transaction post-dates the developer joining the Small Business Program;
- c. The transaction was not for a year-old subscription (which would qualify for a 15% commission even if the SBP did not exist); and
- d. The transaction did not involve the Video Partner Program (which would qualify for a 15% commission even if the SBP did not exist).

15. For all such transactions, the developers' savings from the SBP equal the total amount charged the consumer multiplied by 15% (the difference between their actual commission percentage (15%) and the commission percentage they would have paid but-for the SBP (30%)).

16. **a. Settlement Class.** From its inception to the end of Apple's currently produced transaction data (January 1, 2021, through April 26, 2021), the SBP saved the Settlement Class [REDACTED] in commissions on the U.S. storefront.¹⁶

17. **b. All U.S. developers.** During this time period, the SBP saved *all* U.S. developers (including the Settlement Class [REDACTED] in commissions on the U.S. storefront.¹⁷

¹⁶ "ELSC270 sbp savings Settlement Class since inception.txt".

¹⁷ "ELSC270 sbp savings domestic devs US storefront since inception.txt". There are 16 developers who benefited from the SBP program who are not class members (0.2% of all U.S. developers who benefited from the SBP program). These developers were all either on pace to earn more than \$1 million in 2021 or did actually earn more than \$1 million in one of the other years in the class period. "ELSC912 classmember count among domestic sbp beneficiaries.csv".

B. From End of Apple Transaction Data to 3 Years Post-Settlement

18. Counsel also requested that I estimate how much money the SBP will save developers from the end of the current transaction data to 3 years post settlement.

19. **a. Settlement Class.** The currently available data indicates that the SBP program saved members of the Settlement Class [REDACTED] through the U.S. storefront from January-March of 2021 (the only three full months of Apple transaction data that include the SBP).¹⁸ A reasonable approximation of the future savings from the SBP to the Settlement Class is thus [REDACTED]. Consequently, a reasonable estimate of the additional savings to the Settlement Class from the SBP from May 2021 to August 2021 (a four-month period) is [REDACTED]. Likewise, a reasonable estimate of the additional savings from the SBP for an additional three years is [REDACTED]

20. **b. All U.S. Developers.** The currently available data indicates that the SBP program on average saved U.S. developers [REDACTED] through the U.S. storefront from January-March of 2021 (the only three full months of Apple transaction data that include the SBP).¹⁹ A reasonable approximation of the future savings from the SBP is thus [REDACTED]. Consequently, a reasonable estimate of the additional savings from the SBP from May 2021 to August 2021 (a four-month period) is [REDACTED]. Likewise, a reasonable estimate of the additional savings from the SBP for an additional three years is [REDACTED]

C. Total Commissions Saved due to SBP

21. The total estimated savings to the Settlement Class from the SBP through the U.S. storefront, from the inception of the SBP to three years post settlement, are thus \$177.2 million.²⁰

¹⁸ "ELSC270 Settlement class comm saved from sbp by month.csv".

¹⁹ "ELSC270 domestic devs comm saved from sbp monthly, US storefront.csv".

²⁰ \$15.8M from inception of SBP to end of Apple transaction data, \$16.1M from end of Apple transaction data to the settlement date, and \$145.2M for the three years after the settlement. The total is equal to \$177.2M due to rounding.

22. The total estimated savings to U.S. developers from the SBP through the U.S. storefront, from the inception of the SBP to three years post settlement, are thus \$190.2 million.²¹

V. BENEFITS TO DEVELOPERS FROM OUTSIDE-APP COMMUNICATIONS

23. I understand from counsel that as part of the settlement Apple has undertaken to:

“Permit all U.S. Developers to communicate with their customers via email and other communication services outside their app about purchasing methods other than in-app purchase, provided that the customer consents to the communication and has the right to opt out. In-app communications, including via Apple Push Notification service, are outside the scope of this provision. Apple will revise its App Store Guidelines to permit the foregoing for all app categories, including by deleting from Guideline 3.1.3 the following language: ‘Developers cannot use information obtained within the app to target individual users outside of the app to use purchasing methods other than in-app purchase (such as sending an individual user an email about other purchasing methods after that individual signs up for an account within the app).’”

24. Allowing developers to communicate with customers about purchasing methods other than in-app purchase and allowing developers to use information gathered in the app is a major change from Apple’s previous policies and could bring substantial benefits to developers. Opening up developers’ communication with customers about alternative purchase methods does several things. First, it allows developers to make their customers aware of alternative payment methods. Second, it allows developers to make their customers aware of any discounts they may be offering through those alternative payment methods. Third, if customers take advantage of those alternative payment methods, developers: (a) pay less to Apple in commission fees, (b) put pressure on Apple to lower its commission fees, and (c) deal directly with customers, to the benefit of their customer relationships, ability to solve customer problems, and understanding of customer needs.

²¹ \$16.8M from inception of SBP to end of Apple transaction data, \$17.3M from end of Apple transaction data to the settlement date, and \$156.0M for the three years after the settlement. The total is equal to \$190.2M due to rounding.

Dated: August 26, 2021

A handwritten signature in black ink, appearing to read "Nicholas Economides".

Nicholas Economides